

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P179844

Luminaire Tested: **LDA6A55827D010TE LARH40FL 6LLWW1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P179844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26685)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A55827D010TE LARH40FL 6LLWW1
Description: PORTFOLIO 6" Lensed Wall Wash, Self-flanged, 40° Flood
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4104.9 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 2.12 / 1.05 / 1.48
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

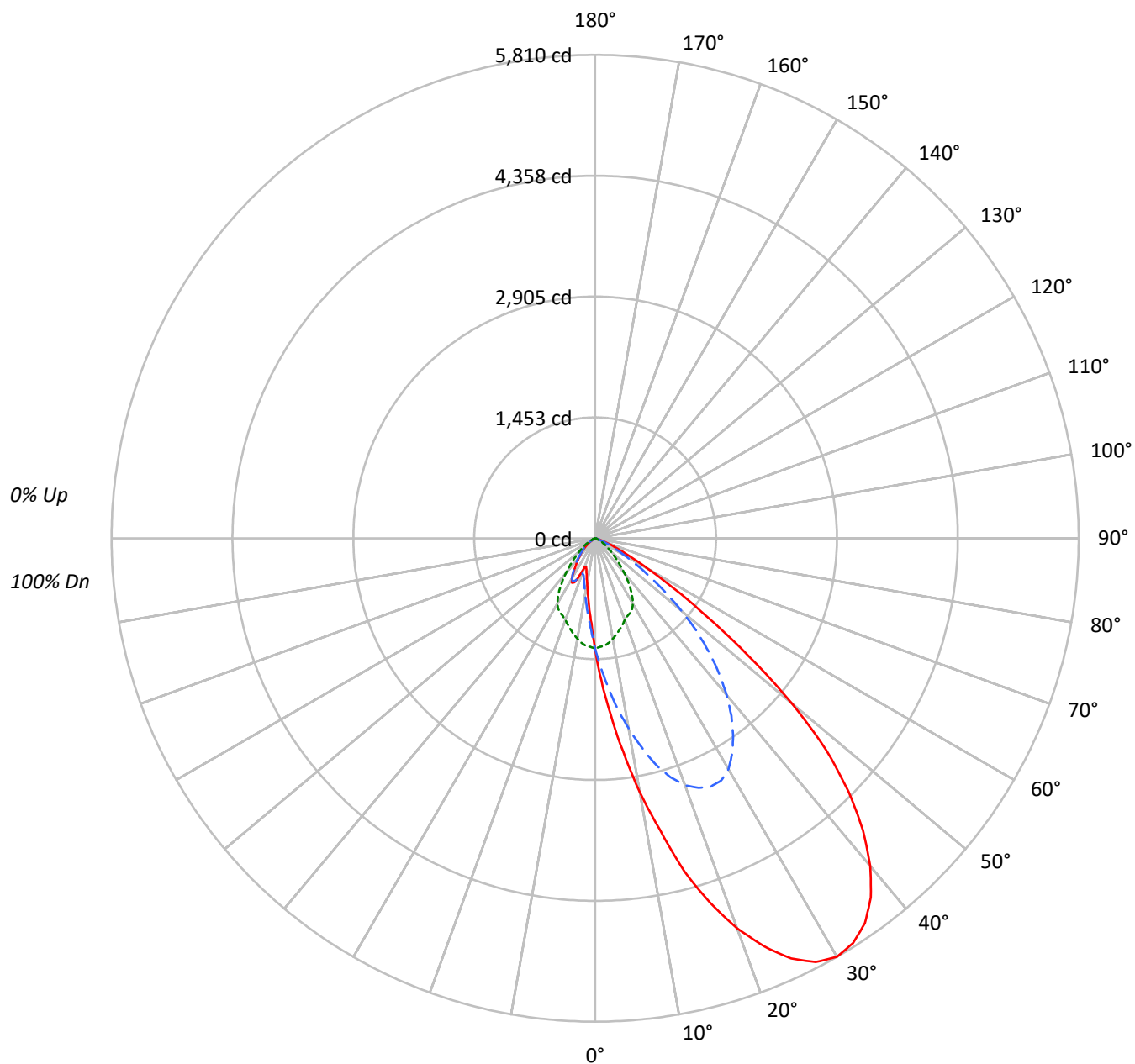
Input Watts (W): 61
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90		
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79		
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70		
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62		
5	83	72	64	59	81	71	64	58	69	63	58	67	61	57	65	60	57	55		
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49		
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44		
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39		
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	72648	72648	72648
5°	116740	71214	45421
10°	172625	68213	30494
15°	235240	64524	22651
20°	290945	60888	21469
25°	337072	59943	35240
30°	367765	57433	35271
35°	377975	49630	27586
40°	368075	39066	21483
45°	333748	28894	16924
50°	262951	21347	11479
55°	156783	15206	6566
60°	80180	10109	2478
65°	38331	5370	1103
70°	18096	2420	1058
75°	7371	1589	1186
80°	3567	1768	1200
85°	1761	2956	1761



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	3.3
10°-20°	480.6	11.7
20°-30°	904.6	22.0
30°-40°	1101.6	26.8
40°-50°	917.0	22.3
50°-60°	439.2	10.7
60°-70°	105.5	2.6
70°-80°	16.6	0.4
80°-90°	3.9	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1521.2	37.1
0°-40°	2622.8	63.9
0°-60°	3979.0	96.9
0°-90°	4104.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4104.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1325	1325	1325	1325	1325	
5°	2121	1800	1294	941	825	232
15°	4145	2816	1137	516	399	1188
25°	5573	3291	991	562	583	2560
35°	5648	2890	742	432	412	3499
45°	4305	1932	373	230	218	3260
55°	1640	797	159	89	69	1545
65°	296	172	41	13	8	338
75°	35	18	8	7	6	47
85°	3	3	5	4	3	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1713.9	1653.6	1672.4	1668.7	1664.9	1645.1	1631.0	1618.8	1587.7	1587.7	1548.2
5°	2121.4	2050.8	2068.7	2055.5	2038.6	2008.4	1981.1	1950.1	1892.7	1868.2	1799.5
7.5°	2587.3	2507.3	2523.3	2496.9	2461.1	2420.7	2376.4	2318.1	2226.8	2171.3	2064.9
10°	3101.1	2987.2	2996.7	2957.1	2897.8	2843.2	2800.9	2689.8	2560.0	2467.7	2319.0
12.5°	3587.7	3487.9	3490.8	3435.2	3349.6	3282.8	3218.8	3071.9	2898.8	2767.0	2571.3
15°	4144.9	4022.5	3993.3	3918.1	3806.1	3724.2	3636.6	3451.2	3233.8	3059.7	2816.0
17.5°	4593.8	4467.7	4448.9	4378.3	4218.3	4119.5	4009.3	3800.4	3524.6	3308.2	3008.9
20°	4987.2	4862.0	4830.0	4738.7	4555.2	4442.3	4309.6	4063.0	3761.8	3495.5	3157.6
22.5°	5309.1	5171.7	5126.5	5013.6	4809.3	4682.3	4520.4	4251.2	3915.2	3617.8	3246.1
25°	5572.6	5416.4	5359.0	5231.0	5001.3	4861.1	4683.2	4382.0	4015.9	3687.5	3291.2
27.5°	5741.1	5584.8	5521.8	5375.0	5117.1	4966.5	4772.6	4447.0	4051.7	3696.9	3281.8
30°	5809.8	5647.9	5576.4	5409.8	5132.1	4973.1	4770.7	4418.7	4005.6	3629.1	3202.8
32.5°	5767.4	5608.4	5528.4	5347.7	5058.7	4887.4	4685.1	4309.6	3884.2	3494.5	3065.4
35°	5647.9	5490.7	5407.9	5215.0	4913.8	4735.0	4533.6	4144.9	3714.8	3316.7	2890.3
37.5°	5441.8	5293.1	5198.0	5007.0	4703.9	4521.3	4321.8	3929.3	3489.8	3115.2	2688.0
40°	5143.4	5002.3	4908.2	4703.9	4417.8	4233.3	4045.1	3647.0	3232.9	2867.7	2455.5
42.5°	4763.2	4633.3	4543.0	4344.4	4071.5	3889.8	3717.6	3335.5	2941.1	2593.8	2204.2
45°	4304.9	4191.9	4103.5	3938.8	3669.6	3497.4	3342.1	2995.7	2612.7	2293.6	1932.2
47.5°	3765.6	3672.4	3586.8	3437.1	3194.3	3031.5	2903.5	2586.3	2261.6	1961.4	1653.6
50°	3083.2	3016.4	2949.6	2794.3	2623.0	2480.9	2387.7	2105.4	1842.8	1607.5	1352.4
52.5°	2324.7	2284.2	2237.1	2126.1	2011.3	1928.4	1845.6	1631.0	1434.3	1259.3	1060.7
55°	1640.4	1619.7	1583.0	1537.9	1450.3	1393.9	1322.3	1213.2	1060.7	943.0	797.2
57.5°	1108.7	1103.0	1077.6	1050.3	1002.3	983.5	923.3	852.7	767.0	679.5	576.0
60°	731.3	719.0	713.4	698.3	661.6	646.6	624.9	579.8	527.1	465.9	401.9
62.5°	470.6	464.0	459.3	452.7	430.1	430.1	408.5	387.8	348.2	310.6	269.2
65°	295.5	289.9	288.9	284.2	275.8	272.0	256.0	240.9	222.1	201.4	172.2
67.5°	190.1	181.6	176.9	174.1	168.5	161.9	156.2	149.6	134.6	122.4	103.5
70°	112.9	105.4	104.5	105.4	98.8	97.9	92.2	87.5	77.2	69.6	58.4
72.5°	64.0	60.2	59.3	59.3	55.5	54.6	50.8	48.0	42.4	36.7	32.0
75°	34.8	32.0	32.0	32.0	30.1	29.2	27.3	26.4	22.6	20.7	17.9
77.5°	19.8	18.8	18.8	17.9	16.9	16.0	15.1	15.1	13.2	12.2	11.3
80°	11.3	11.3	11.3	11.3	10.4	10.4	9.4	9.4	8.5	8.5	7.5
82.5°	6.6	6.6	6.6	6.6	6.6	6.6	5.6	5.6	5.6	5.6	4.7
85°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
87.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1530.3	1502.1	1500.2	1458.8	1432.4	1410.8	1394.8	1375.0	1330.8	1306.3	1288.4
5°	1751.5	1693.1	1663.0	1587.7	1546.3	1509.6	1464.4	1417.4	1344.9	1294.1	1252.7
7.5°	1981.1	1884.2	1820.2	1708.2	1651.7	1594.3	1518.1	1441.9	1343.0	1266.8	1203.7
10°	2194.8	2057.4	1955.7	1805.1	1731.7	1656.4	1549.2	1446.6	1323.3	1225.4	1142.6
12.5°	2404.7	2224.0	2083.7	1892.7	1803.3	1710.1	1572.7	1443.7	1298.8	1181.2	1084.2
15°	2605.1	2378.3	2199.5	1968.9	1864.4	1752.4	1587.7	1435.3	1270.6	1136.9	1026.8
17.5°	2765.1	2496.0	2281.4	2016.0	1898.3	1771.3	1582.1	1410.8	1232.0	1089.9	969.4
20°	2875.2	2571.3	2326.5	2034.8	1905.9	1769.4	1560.4	1376.9	1191.5	1043.7	921.4
22.5°	2934.5	2605.1	2338.8	2029.1	1894.6	1751.5	1534.1	1345.9	1159.5	1011.7	895.0
25°	2956.2	2608.0	2325.6	2004.7	1869.1	1723.3	1503.0	1316.7	1134.1	991.0	881.9
27.5°	2930.8	2568.4	2277.6	1953.8	1816.4	1672.4	1453.2	1275.3	1096.5	960.9	858.3
30°	2844.2	2476.2	2183.5	1863.5	1728.9	1590.6	1374.1	1199.0	1035.3	907.3	809.4
32.5°	2706.8	2340.7	2050.8	1739.3	1609.4	1476.7	1269.6	1103.0	950.6	830.1	742.6
35°	2536.4	2178.8	1896.4	1594.3	1472.0	1346.8	1150.1	992.9	849.9	741.6	656.0
37.5°	2343.5	1999.0	1726.1	1448.4	1324.2	1206.6	1015.5	880.9	743.5	644.7	566.6
40°	2127.0	1792.9	1544.4	1274.3	1165.2	1057.9	880.9	758.6	633.4	545.9	478.1
42.5°	1895.5	1584.0	1354.3	1111.5	1002.3	904.5	745.4	635.3	524.2	451.8	398.1
45°	1649.9	1375.0	1154.8	937.4	838.6	753.9	608.9	509.2	428.2	372.7	332.2
47.5°	1392.9	1150.1	954.3	765.2	677.6	604.2	487.5	411.3	347.3	306.8	275.8
50°	1134.1	917.6	762.3	601.4	526.1	467.8	381.2	328.5	281.4	250.3	226.8
52.5°	886.6	709.6	583.5	453.6	396.2	355.8	297.4	260.7	224.9	201.4	183.5
55°	655.0	534.6	426.3	329.4	295.5	270.1	228.7	202.3	176.9	159.1	145.9
57.5°	473.4	383.1	304.0	241.9	219.3	202.3	172.2	154.4	136.5	123.3	112.9
60°	332.2	264.5	214.6	176.9	160.9	149.6	128.0	116.7	103.5	92.2	81.9
62.5°	218.3	177.9	149.6	125.2	115.8	107.3	92.2	83.8	72.5	64.9	55.5
65°	142.1	116.7	99.8	83.8	76.2	72.5	62.1	55.5	48.0	41.4	35.8
67.5°	86.6	72.5	63.1	52.7	48.9	45.2	38.6	33.9	29.2	24.5	21.6
70°	48.0	42.4	36.7	31.1	28.2	26.4	22.6	20.7	16.9	15.1	12.2
72.5°	28.2	24.5	21.6	17.9	16.9	16.0	13.2	12.2	10.4	9.4	8.5
75°	16.9	14.1	13.2	11.3	10.4	10.4	9.4	8.5	7.5	7.5	6.6
77.5°	10.4	9.4	8.5	7.5	7.5	7.5	6.6	6.6	6.6	5.6	5.6
80°	6.6	6.6	6.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
82.5°	4.7	4.7	4.7	3.8	4.7	3.8	4.7	4.7	4.7	4.7	4.7
85°	2.8	2.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	4.7
87.5°	2.8	2.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1267.7	1232.9	1207.5	1188.7	1195.3	1162.3	1152.0	1116.2	1103.0	1103.0	1084.2
5°	1210.3	1154.8	1111.5	1084.2	1082.3	1035.3	1010.8	965.6	941.2	923.3	905.4
7.5°	1141.6	1070.1	1012.7	979.7	970.3	914.8	881.9	836.7	800.0	776.5	754.8
10°	1068.2	982.6	917.6	880.0	865.9	805.6	762.3	720.9	681.4	656.9	634.3
12.5°	997.6	904.5	832.9	794.3	776.5	714.3	670.1	626.8	589.2	563.8	541.2
15°	932.7	833.9	758.6	720.0	700.2	639.0	594.8	552.5	515.8	492.2	471.5
17.5°	871.5	770.8	695.5	657.9	636.2	579.8	537.4	496.0	463.1	441.4	422.6
20°	825.4	725.6	656.0	623.0	601.4	548.7	512.0	476.2	448.9	432.9	415.1
22.5°	805.6	713.4	654.1	624.0	608.9	566.6	541.2	515.8	497.9	495.1	483.8
25°	802.8	721.9	672.9	647.5	638.1	606.1	591.0	575.0	561.9	565.6	567.5
27.5°	790.6	715.3	674.8	653.2	645.6	619.3	608.0	592.9	583.5	588.2	590.1
30°	748.2	678.6	640.9	623.0	615.5	589.2	579.8	562.8	555.3	556.2	555.3
32.5°	682.3	616.5	581.6	565.6	557.2	533.6	523.3	508.2	496.9	496.0	494.1
35°	602.3	543.0	511.1	496.9	488.5	468.7	459.3	445.2	432.0	431.1	429.2
37.5°	520.5	467.8	440.5	428.2	420.7	404.7	393.4	384.0	375.5	371.8	370.8
40°	441.4	394.3	374.6	365.2	359.5	342.6	336.9	327.5	320.9	317.2	316.2
42.5°	367.1	334.1	318.1	309.6	304.9	292.7	286.1	278.6	272.0	268.2	267.3
45°	311.5	284.2	269.2	262.6	258.8	247.5	242.8	235.3	229.6	226.8	225.9
47.5°	259.8	238.1	227.8	220.2	219.3	209.9	203.3	197.6	192.0	189.2	188.2
50°	212.7	194.8	186.3	181.6	180.7	171.3	166.6	161.9	157.2	154.4	152.5
52.5°	175.1	158.1	152.5	145.9	144.9	136.5	132.7	128.0	123.3	119.5	116.7
55°	138.4	125.2	119.5	113.9	112.9	103.5	99.8	94.1	89.4	85.6	81.9
57.5°	105.4	95.1	89.4	83.8	82.8	76.2	69.6	64.9	60.2	55.5	52.7
60°	77.2	66.8	60.2	57.4	54.6	48.0	43.3	39.5	35.8	32.9	30.1
62.5°	50.8	43.3	38.6	34.8	32.9	28.2	25.4	22.6	20.7	19.8	18.8
65°	31.1	26.4	22.6	20.7	20.7	17.9	16.0	14.1	13.2	13.2	12.2
67.5°	18.8	16.0	14.1	13.2	12.2	11.3	10.4	10.4	9.4	9.4	8.5
70°	11.3	10.4	9.4	8.5	8.5	8.5	8.5	8.5	7.5	7.5	7.5
72.5°	8.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	6.6	6.6	6.6
75°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	5.6
77.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
80°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.7	4.7	4.7
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	4.7	4.7	4.7	4.7	4.7	4.7	3.8	3.8	3.8	3.8	3.8
87.5°	4.7	3.8	3.8	3.8	3.8	3.8	2.8	2.8	2.8	2.8	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P179844

CATALOG NUMBER: LDA6A55827D010TE LARH40FL 6LLWW1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1074.8	1082.3	1071.0	1063.5	1056.0	1061.6	1035.3	1024.0
5°	888.5	880.0	874.3	867.8	856.5	858.3	835.8	825.4
7.5°	735.0	729.4	715.3	707.8	696.5	696.5	675.8	667.3
10°	613.6	605.2	592.0	585.4	575.0	566.6	556.2	547.8
12.5°	521.4	512.0	500.7	495.1	484.7	478.1	467.8	469.6
15°	452.7	443.3	432.9	427.3	418.8	412.2	403.8	399.1
17.5°	404.7	396.2	387.8	382.1	375.5	369.9	362.3	361.4
20°	400.9	394.3	389.6	385.9	380.2	376.5	372.7	368.0
22.5°	480.0	480.9	481.9	481.9	482.8	482.8	483.8	474.3
25°	566.6	576.9	576.9	579.8	588.2	588.2	586.3	582.6
27.5°	589.2	599.5	596.7	598.6	607.0	608.9	602.3	603.3
30°	551.5	560.9	555.3	556.2	561.9	561.9	553.4	557.2
32.5°	488.5	494.1	486.6	486.6	491.3	490.3	484.7	484.7
35°	421.6	424.5	417.9	420.7	420.7	417.9	412.2	412.2
37.5°	364.2	365.2	358.6	359.5	359.5	356.7	351.1	351.1
40°	309.6	312.5	306.8	308.7	306.8	304.0	301.2	300.2
42.5°	261.6	263.5	258.8	261.6	260.7	260.7	259.8	260.7
45°	220.2	222.1	218.3	220.2	221.2	220.2	217.4	218.3
47.5°	182.6	184.5	184.5	182.6	181.6	176.9	174.1	174.1
50°	147.8	146.8	145.9	143.1	140.2	137.4	134.6	134.6
52.5°	111.1	109.2	108.2	105.4	104.5	101.6	101.6	98.8
55°	76.2	75.3	75.3	72.5	72.5	69.6	68.7	68.7
57.5°	48.0	46.1	47.1	45.2	44.2	41.4	41.4	40.5
60°	27.3	26.4	26.4	25.4	24.5	22.6	22.6	22.6
62.5°	17.9	16.9	16.9	16.0	16.0	15.1	15.1	14.1
65°	11.3	10.4	10.4	9.4	9.4	8.5	8.5	8.5
67.5°	8.5	7.5	7.5	7.5	7.5	7.5	6.6	6.6
70°	7.5	7.5	6.6	6.6	6.6	6.6	6.6	6.6
72.5°	6.6	6.6	6.6	6.6	5.6	5.6	5.6	5.6
75°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
77.5°	5.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	4.7	4.7	4.7	4.7	4.7	4.7	3.8	3.8
82.5°	4.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
85°	3.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
87.5°	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)